wave is explained as being due to marked counter-clockwise rotation about the long axis of the heart, but this could be due to the early pattern of left ventricular hypertrophy. In Figure 49 Goldberger explains the small R wave and deep S wave in V6 as being due to marked clockwise rotation, but does not consider the possibility of an associated right ventricular hypertrophy. His explanations of rotation of the heart in various planes is somewhat difficult to grasp, but it is stimulating, nevertheless, to see an attempt made to explain the varying patterns on a rational basis.

In the discussion of right ventricular hypertrophy, insufficient stress is placed on the importance of the reversal of the normal R/S ratio in both the right and left precordial leads. The discussion of the effects of rotation of the heart is less convincing than in the chapter on left ventricular hypertrophy.

The chapter on bundle branch block is excellent, and great credit is due Goldberger for his appreciation of the fact that the left side of the inter-ventricular septum is the first region of the ventricles to be stimulated. This has been confirmed recently by right heart catheterization in patients which demonstrated a small upright R wave in leads from the right ventricular cavity.

The discussion of myocardial infarction could have been expanded and greater attention could have been given to the occasional necessity for exploratory leads high and laterally over the left chest.

In general, this book can be recommended to the cardiologist as a thoughtful, original presentation of a difficult subject with an attempt to explain physiologically abnormal electrocardiographic patterns and the importance of variable rotation of the heart on its three axes. Inadequate attention has been paid to the ventricular activation time and more data in the nature of clinical and autopsy findings would have been helpful in the support of his concepts. This book can be read with profit by all physicians interested in electrocardiography.

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EXPERIMENTAL AIRBORNE INFECTION. By Theodor Rosebury, with the co-authorship and assistance of the Staff of the Laboratories of Camp Detrick, Maryland. The Williams and Wilkins Company, 1947. Price $4.00.

This unusual monograph appears at an auspicious time when men who worry about the future of our world have constantly before them the spectre of the atomic bomb and conjure fantastically vivid pictures of the widespread biologic harm that might follow in the wake of unleashed atomic energy. Here we have an opportunity to view the potentialities of the biologic "bomb" through the medium of airborne infection, an apparently adequate counterpart, although perhaps less immediately devastating than that given in Smyth's "Atomic Energy." There is much information of immediate usefulness for the benefit of mankind and humanity in Rosebury's small volume. No physician can afford to be unaware of the potentialities of "clouds of pathogenic bacteria" floating freely in the proper ambient of temperature, humidity, and air turbulence.

In order to explain the epidemiology of some communicable diseases, the ancient Greeks referred to *miasmata*—defilement of the air with particles capable of producing infection. Today Rosebury and his associates bring to us scientific proof for the communicability of certain diseases through space without the mediation of contact through touch or fomites. The epidemiology of certain cyclical and seasonal disorders of the respiratory tract becomes much simplified by the application of the data and objective discussions of these authorities. "Experimental Airborne Infection" is a thought provoking book, and for all biologists, including the physician especially interested in Preventive Medicine, it has a particularly poignant message to convey. The book is well illustrated, the details of the experiments are carefully outlined, the data are impeccable, the analyses are strictly objective, and the conclusions derived from the work are the best expressions of orderly minds working toward a common goal.

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MEDICINE. By A. E. Clark-Kennedy, M.D., Fellow of Corpus Christi College, Cambridge. Volume I—The Patient and His Disease. The Williams and Wilkins Company, 1947. $6.00.

A. E. Clark-Kennedy is the dean of the Medical School at London Hospital. He believes that medicine is an art as well as a science and that a true physician must often treat the soul as well as the body of his patient. In this book he gives the reasons and the reasoning for and of his beliefs. In doing so he examines all phases of medicine, attempts to correlate them and to define the broad general principles that underlie them.

This is an enormous task for one man to undertake. The author admits that he must necessarily "trespass in many branches of medicine with which [he is] relatively unfamiliar."

The result of this philosopher-physician assayal is interesting and stimulating. He divides his book into six chapters, each of which may be read independently. In fact a certain amount of reiteration in his pattern of thought makes this a preferable method of reading throughout. He emphasizes "the broad view of medicine" and the fact that the various afflictions and affections of man are the complex result of his genes and his environment. The relationship of man's body and his mind is also repeatedly emphasized against this background. At the end of each chapter is a summary of the material it contains.

The book may be recommended to any philosophically minded practitioner or student. It is not to be confused with a regular textbook. It is, of necessity, an expression of Clark-Kennedy's viewpoint and his, at times, limited knowledge. As such it offers pleasant and provocative reading.

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FATIGUE AND IMPAIRMENT IN MAN. By S. Howard Bartley, Ph.D., Professor of Research in the Visual Sciences, Dartmouth Eye Institute of the Dartmouth Medical School, and Eloise Chute, M.A., Research Associate, Dartmouth Eye Institute of the Dartmouth Medical School. McGraw-Hill Book Company, Inc. $5.50.

The authors of this readable book have as their initial aim the formulation of the precise distinctions between fatigue and impairment. Briefly put, the former is a subjective feeling while the latter is primarily due to the physical effects of extreme expenditures of energy or to unphysiologic environmental conditions. Fatigue and impairment are frequently associated, but each may occur in the absence of the other. This point is not belabored for, as the authors emphasize, many excellent laboratory experiments although truly concerned with physical impairment, are heralded as being concerned with fatigue.

Topics critically considered in the book include: Impairment due to anoxia, visual-fatigue studies, drug action in relation to fatigue, and the relation of nutrition and metabolism to fatigue and impairment. The latter sections contain an interesting and thorough discussion of the emotional factors relating to what physicians frequently designate as "nervous exhaustion." Since this publication is essentially a review of the literature, the authors have been scrupulous in citing their original sources.

The present reviewer finds Fatigue and Impairment a well-organized stimulating book with a pleasing minimum of jargon. Practicing physicians will indeed have little need for a copy but social workers, physiologists, psychologists, and those concerned with industrial or aviation medicine, for example, may assiduously study this report with profit.